



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,552	12/28/2000	R. Victor Klassen	D/99822 XER 2 0352	6455

7590 06/15/2004

Albert P. Sharpe, III, Esq.
Fay, Sharpe, Fagan,
Minnich & McKee, LLP
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2518

EXAMINER

STEPHANY, TIMOTHY J

ART UNIT PAPER NUMBER

2622

DATE MAILED: 06/15/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/750,552

Applicant(s)

KLASSEN ET AL.

Examiner

Timothy J. Stephany

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-20 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2622

DETAILED ACTION

Allowable Subject Matter

Claims 6-8 are potentially allowable over the prior art, which does not describe, disclose, nor suggest the contents therein.

Claims are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Specification

The disclosure is objected to because of the following informalities:

On page 12, line 4: typographical error, "desired sized is reached" should read "desired size is reached".

Appropriate correction is required.

Claim Objections

Claim 20 is objected to because of the following informalities:

Line 5: punctuation unclear, "first current vertex, a second current" should read "first current vertex; a second current". Appropriate correction is required.

Drawings

The drawings are objected to because elements 20 and 16 are not labeled as "processing device" and "memory device", respectively, in Figure 1. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2622

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 9-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gondek ('176).

Regarding **claim 1**, Gondek discloses a color value for a data point in RGB color space (col. 2, lines 45-47), which is the identified color value in the first color space. Color tables can use a look-up table to transform the input RGB values into a CMY value through a device-independent color space, finding these values by using a means of interpolation (detailed in col. 2, lines 56-67) and suggesting intermediate (mid-point) interpolation (col. 2, lines 45-47), which is the conversion to the predefined final look-up table by a mid-point interpolation method into the second color-space. A look-up table is equivalent to ROM and thus constitutes implied storage in a memory device.

Regarding **claim 2, 3 and 4**, Gondek discloses a number of calculations for a single color that define mid-point calculations (col. 6, lines 31-44 and Figure 5), which is a number of mid-point interpolations as a function of the resolution of the LUT for the second color space of claim 3. Gondek also has disclosed that for each mid-point calculation there are two values and an intermediate color (equations (5), col. 6, lines 35-43) where the two points represent an anchor (**p1** for example) and a current (**p5** for example) vertex with an intermediate value (**s5** in this example) that are the anchor vertex and the current vertex and thereby calculating an intermediate color of claim 4. These fractional values also constitute that the final look-up table is of a higher resolution than the initial one, as defined by the level of subdivision (col. 7, lines 60-63)

Art Unit: 2622

where the initial look-up table has a lower resolution and includes a plurality of conversion values.

Regarding **claim 5**, Gondek discloses a second current vertex (**s5** in Figure 4) as a function of the current color, anchor vertex and first current vertex (described above), and a second current intermediate color (shown mid-way between **s5** and **p1** in Figure 4) that are a function of the second current vertex and the anchor vertex (described above) of claim 5.

Regarding **claims 10 and 11**, and thus **claim 9**, Gondek has been shown to receive a pixel value from a color space and determining a value in a second color space by determining the mid-point and then producing the pixel in the second color space through a digital output device or xerographic (electro-photographic) system. Gondek adds that it is can be used with an output device that is a color laser printer (col. 2, line 5) that is both a digital output device and a toner (electro-photographic) printer.

Regarding **claim 12 and 13**, Gondek has already been shown to disclose a number of calculations for a single color that define mid-point calculations (col. 6, lines 31-44 and Figure 5), which is a number of mid-point interpolations as a function of the resolution of the LUT for the second color space of claim 12. Gondek also has disclosed that for each mid-point calculation there are two values and an intermediate color (equations (5), col. 6, lines 35-43) where the two points represent a anchor (**p1** for example) and a current (**p5** for example) vertex with an intermediate value (**s5** in this

Art Unit: 2622

example) that are the anchor vertex and the current vertex and thereby calculating an intermediate color of claim 13.

Regarding **claim 14**, Gondek has already been shown to disclose a second current vertex (**s5** in Figure 4) as a function of the current color, anchor vertex and first current vertex (described above), and a second current intermediate color (shown mid-way between **s5** and **p1** in Figure 4) that are a function of the second current vertex and the anchor vertex (described above) of claim 14.

Regarding **claims 15, 17 and 18**, Gondek inherently teaches the "processing device", "memory device" and "output device" as evidenced by the rejection of the method in claims 1 and 9. The use of Gondek's method includes an implied use of devices in a system such as memory (col. 3, lines 40-41), microprocessors (col. 3, lines 59-60), monitors and printers (col. 4, lines 42-43). Thus claim 15 is rejected on the same grounds as claims 1 and 9, claim 17 also including the rejection to claim 10 and claim 18 also including the rejection to claim 11.

Regarding **claim 16**, there is no clear difference in meaning between the phrase "the converted color space values are previously stored in the lookup table" and the phrase in claim 1 that states "a converted color space value [received] from a lookup table", and is therefore rejected on the same justification as claim 15.

Regarding **claims 19 and 20**, Gondek inherently teaches the "processing device" as evidenced by the rejection of the method in claims 4 and 5. The use of Gondek's method includes an implied use of devices in a system such as memory (col. 3, lines 40-41), microprocessors (col. 3, lines 59-60), monitors and printers (col. 4, lines 42-43).


Art Unit: 2622

Thus claim 19 is rejected on the same grounds as 15 also including the rejection to claim 4 and claim 20 is rejected on the same grounds as 15 also including the rejection to claim 5.

Additional Notes

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dillinger ('077) and Rolleston ('324) refer to interpolation of intermediate points in color space; Sara ('722) and Kasson ('035) refer to data interpolation; Chui ('608) refers to mid-point interpolation; and Miyake ('963) refers to high and low resolution conversion.


EDWARD COLES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Stephany whose telephone number is 703-305-8951. The examiner can normally be reached on 8:30 am - 4:30 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).